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### **REMARKS**

This response is intended as a full and complete response to the non-final Office Action mailed June 30, 2005. In the Office Action, the Examiner notes claims 1-39 are pending and rejected. By this response, claims 1 and 21 are amended. Claims 2-20 and 22-39 continue unamended. No new matter has been entered.

In view of both the amendments presented above and the following discussion, Applicants submit that none of the claims now pending in the application are indefinite, anticipated or obvious under the provisions of 35 U.S.C. §112, §102 and §103.

It is to be understood that Applicants, by amending the claims, do not acquiesce to the Examiner's characterizations of the art of record or to Applicants' subject matter recited in the pending claims. Further, Applicants are not acquiescing to the Examiner's statements as to the applicability of the art of record to the pending claims by filing the instant responsive amendment.

### **CLAIM OBJECTIONS**

The Examiner has objected to claims 16-17 and 21-39 because of various informalities.

The Examiner has objected to claim 21, suggesting insertion of the phrase "comprising the steps of" after "switching traffic" on line 2. In response, Applicants have herein amended claim 21 to include the phrase suggested by the Examiner.

The Examiner has objected to claims 16-17 and 35-36, asserting that the Applicants' specification fails to provide proper support for the claimed subject matter. The Applicants respectfully disagree. Support for each of claims 16-17 and 35-36 may be found at least on page 31, paragraphs 2 and 3 of Applicants' specification as originally filed, which clearly indicates that both the port access identifier and the tributary access identifier include network equipment information, and that the network equipment information may be retrieved from the respective access identifiers. Furthermore, support for each of claims 16-17 and 35-36 may

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also be found at least on page 34, paragraphs 3 and 4 of Applicants' specification as originally filed, which specifically state that the controller processes the access identifiers for retrieving any required network equipment information from the access identifiers. As such, Applicants' originally filed specification provides proper support for Applicants' claims 16-17 and 35-36.

Therefore, Applicants respectfully submit that the Examiner's objections should be withdrawn.

### **REJECTIONS**

#### **35 U.S.C. §112**

The Examiner has rejected claims 1-39 under 35 U.S.C. §112, ¶2, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention.

The Examiner has rejected claims 1 and 21, asserting that the limitation "may include one or more port tributaries" is indefinite since it is unclear as to whether the tributaries are included. In response, the Applicants have herein amended claims 1 and 21 to replace "that may include" with "including."

Thus, the Applicants submit that claims 1-39 are definite under 35 U.S.C. §112, ¶2, and are patentable thereunder. Therefore, Applicants respectfully submit that the Examiner's rejections be withdrawn.

#### **35 U.S.C. §102**

##### **Claims 1-2 and 21-22**

The Examiner has rejected claims 1-2 and 21-22 under 35 U.S.C. §102(e) as being anticipated by Arslan et al. (6,707,789, hereinafter "Arslan"). Applicants respectfully traverse the rejection.

In general, Arslan teaches an integrated telecommunications network element including a plurality of add-drop multiplexers (ADMs) and a digital cross-connect system (DCS). In particular, Arslan teaches that each interface unit of the DCS includes one port at the output of the DCS and one or more ports connected

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to a cross-connect fabric. The signals flowing through the ports that are connected to the cross-connect fabric are sometimes referred to as tributaries, and a tributary from any port can be connected to any other port through the cross-connect fabric. (Arslan, Col. 1, Lines 37-44).

Arslan, however, fails to teach or suggest each and every element of Applicants' invention. Namely, Arslan fails to teach or suggest at least the limitation of "a controller configured to create one or more logical tributaries between the digital cross-connect and the communications ports by mapping one or more port tributaries into a logical tributary." Specifically, Applicants' claim 1 positively recites:

An integrated telecommunications network element comprising:  
a plurality of add-drop-multiplexers, each add-drop-multiplexer having one or more communications ports, each communications port carrying communications traffic including one or more port tributaries;  
a digital cross-connect configured to route communications traffic among the port tributaries;  
and  
a controller configured to create one or more logical tributaries between the digital cross-connect and the communications ports by mapping one or more port tributaries into a logical tributary.  
[Emphasis added.]

In the Office Action, the Examiner asserts that Arslan discloses a controller (110) configured to create one or more logical tributaries between the digital cross-connect and the ports by mapping one or more port tributaries into a logical tributary. The Examiner, however, fails to point to anything in Arslan that teaches this limitation of Applicants' invention of at least claim 1. Rather, in support of Applicants' limitation, the Examiner merely states "see figure 1 for details of a DCS, figure 2 for details of an ADM, figure 3 ADM and DCS are integrated, and figure 4 where the controller can control both the ADM and DCS." (Office Action, Page 3). The figures cited by the Examiner (as well as the corresponding portions of the specification), however, merely teach that a plurality of ADMs and a DCS

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may be integrated into an integrated telecommunications network element, and may be controlled by a single controller.

In particular, with respect to the controller cited by the Examiner, Arslan states that "[t]o perform the functions that controller 110 now needs to perform in excess of the functions that prior art controllers of integrated DCSs have, controller 110 is augmented to perform the necessary control functions. To a large extent, these control functions are merely ported from the controller of the ADM portions of the integrated DCS." (Arslan, Col. 5, Lines 12-15). Furthermore, as taught by Arslan, the prior art functions of an ADM controller include ring management functions. Thus, Arslan merely teaches that the controller for controlling the integrated network element is operable for performing both ADM ring management functions as well as DCS cross-connect functions.

Nowhere in Arslan is there any teaching or suggestion that the controller is configured to create one or more logical tributaries between a digital cross-connect and communications ports by mapping one or more port tributaries into a logical tributary. Rather, as taught in Arslan, the controller merely enables routing of data from any line unit interface of any ADM to any other line unit interface of any other ADM by including some of the switching controls of the ADMs into the controller controlling both the ADMs and the DCS. As such, Arslan is directed towards the routing of data between ADMs via a DCS cross-connect fabric. By contrast, the Applicants' invention of at least claim 1 claims a controller configured to create one or more logical tributaries between the DCS and communications ports on the ADMs. Arslan fails to teach or suggest the routing of traffic between the ADMs and the DCS of the integrated network element, much less the creation of one or more logical tributaries between the ADMs and the DCS of the integrated network element.

As such, a controller for controlling a plurality of ADMs and a DCS such that traffic may be routed between ADMs via a DCS cross-connect fabric, as taught in Arslan, is simply not a controller adapted for creating one or more logical tributaries between a DCS and the communications port of an ADM, as taught in Applicants'

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invention of at least claim 1. Furthermore, Arslan is completely devoid of any teaching or suggestion of the mapping of one or more port tributaries into a logical tributary. Thus, Arslan simply cannot teach or suggest creating one or more logical tributaries between a DCS and the communications ports of a plurality of ADMs by performing such a mapping of one or more port tributaries into a logical tributary. Therefore, Arslan fails to teach each and every element of Applicants' invention of at least claim 1.

"Anticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, arranged as in the claim" (Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co., 730 F.2d 1452, 221 USPQ 481, 485 (Fed. Cir. 1984) (citing Connell v. Sears, Roebuck & Co., 722 F.2d 1542, 220 USPQ 193 (Fed. Cir. 1983)) (emphasis added). The Arslan reference fails to disclose each and every element of the claimed invention, as arranged in the claim.

As such, Applicants submit that independent claim 1 is not anticipated and fully satisfies the requirements of 35 U.S.C. §102 and is patentable thereunder. Furthermore, independent claim 21 recites features substantially similar to the features of claim 1. Thus, for at least the reasons discussed above with respect to claim 1, independent claim 21 is also not anticipated and fully satisfies the requirements of 35 U.S.C. §102 and is patentable thereunder.

As such, Applicants submit that independent claims 1 and 21 are not anticipated and fully satisfy the requirements of 35 U.S.C. §102 and are patentable thereunder. Furthermore, claims 2 and 22 depend directly from independent claims 1 and 21 and recite additional features thereof. Accordingly, at least for the same reasons as discussed above, Applicants submit that these dependent claims are also not anticipated and fully satisfy the requirements of 35 U.S.C. §102 and are patentable thereunder. Therefore, Applicants respectfully request that the Examiner's rejection be withdrawn.

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### **35 U.S.C. §103**

#### **Claims 3-6, 8-10, 12-15, 18-20, 23-25, 27-29, 31-34 and 37-39**

The Examiner has rejected claims 3-6, 8-10, 12-15, 18-20, 23-25, 27-29, 31-34 and 37-39 under 35 U.S.C. §103(a) as being unpatentable over Arslan in view of U.S. Patent No. 6,697,329 to McAllister et al. (hereinafter "McAllister"). Applicants respectfully traverse the Examiner's rejection.

Claims 3-6, 8-10, 12-15, 18-20, 23-25, 27-29, 31-34 and 37-39 depend, either directly or indirectly, from independent claims 1 and 21, and recite additional limitations therefor. For at the least the reasons discussed above in connection with the Examiner's §102 rejection of claims 1 and 21 in view of Arslan, Applicants submit that Arslan fails to teach or suggest the Applicants' invention as a whole. Specifically, Arslan fails to teach or suggest at least the limitation of "a controller configured to create one or more logical tributaries between the digital cross-connect and the communications ports by mapping one or more port tributaries into a logical tributary." Furthermore, McAllister fails to bridge the substantial gap between Arslan and Applicants' invention.

In general, McAllister discloses a method for operator directed routing of connections in a digital communications network in which a virtual circuit path is manually provisioned across a network by a human operator. In particular, McAllister discloses that the operator directed route is established by manually provisioning a preferred path for the connection, including a source node, destination node, and intermediate nodes or sub-networks. As taught in McAllister, the source node creates a call setup message that is signaled along the preferred path, whereby the intermediate nodes along the preferred path establish the bearer channel cross-connects. (McAllister, Abstract). McAllister, however, fails to teach or suggest Applicants' invention as a whole.

McAllister is completely devoid of any teaching or suggestion of an add-drop multiplexer or a digital cross-connect system, much less of an integrated network element including a plurality of ADMs and a DCS, as taught in Applicants'

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invention of at least claim 1. Furthermore, McAllister is completely devoid of any teaching or suggestion of the mapping of one or more port tributaries into a logical tributary. As such, Arslan simply cannot teach or suggest a controller adapted for creating one or more logical tributaries between a DCS and the communications ports of a plurality of ADMs by performing such a mapping of one or more port tributaries into a logical tributary. Therefore, Arslan fails to teach each and every element of Applicants' invention of at least claim 1.

The test under 35 U.S.C. §103 is not whether an improvement or a use set forth in a patent would have been obvious or non-obvious; rather the test is whether the claimed invention, considered as a whole, would have been obvious. Jones v. Hardy, 110 USPQ 1021, 1024 (Fed. Cir. 1984) (emphasis added). Moreover, the invention as a whole is not restricted to the specific subject matter claimed, but also embraces its properties and the problem it solves. In re Wright, 6 USPQ 2d 1959, 1961 (Fed. Cir. 1988) (emphasis added). The Arslan and McAllister references, alone or in combination, fail to teach or suggest Applicants' invention as a whole.

Thus, Applicants submit that independent claim 1 is not obvious over Arslan in view of McAllister and fully satisfies the requirements of 35 U.S.C. §103 and is patentable thereunder. Furthermore, claim 21 recites features substantially similar to the features of claim 1. Therefore, for at least the reasons discussed above with respect to claim 1, independent claim 21 is also not obvious over Arslan in view of McAllister and fully satisfies the requirements of 35 U.S.C. §103 and is patentable thereunder.

Furthermore, dependent claims 3-6, 8-10, 12-15, 18-20, 23-25, 27-39, 31-34 and 37-39 depend directly or indirectly from independent claims 1 and 21 and recite additional features therefor. Accordingly, at least for the same reasons as discussed above, Applicants submit that these dependent claims are also not obvious over Arslan in view of McAllister and fully satisfy the requirements of 35 U.S.C. §103 and are patentable thereunder. Therefore, Applicants respectfully request that the Examiner's rejection be withdrawn.

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#### **ALLOWABLE SUBJECT MATTER**

The Examiner has objected to claims 7, 11, 26 and 30 as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Applicants thank the Examiner for indicating allowable subject matter but believe independent claims 1 and 21 from which dependent claims 7, 11, 26 and 30 depend are allowable over the prior art of record for the reasons set forth above. It therefore follows that Applicants believe that dependent claims 7, 11, 26 and 30 are also allowable. Therefore, Applicants respectfully request that the foregoing objection to claims 7, 11, 26 and 30 be withdrawn.

#### **SECONDARY REFERENCES**

The secondary references made of record are noted. However, it is believed that the secondary references are no more pertinent to Applicants' disclosure than the primary references cited in the Office Action. Therefore, Applicants believe that a detailed discussion of the secondary references is not necessary for a full and complete response to this office action.



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### CONCLUSION

Thus, Applicants submit that none of the claims presently in the application are indefinite, anticipated or obvious under the provisions of 35 U.S.C. §112, §102 and §103. Accordingly, both reconsideration of this application and its swift passage to issue are earnestly solicited.

If, however, the Examiner believes that there are any unresolved issues requiring adverse final action in any of the claims now pending in the application, it is requested that the Examiner telephone Eamon J. Wall at (732) 530-9404 so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

Respectfully submitted,

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